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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/913,708	09/24/2001	Ralph Sperschneider	3219	2693

7590 11/28/2006

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EXAMINER

VO, HUYEN X

ART UNIT PAPER NUMBER

2626

DATE MAILED: 11/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	09/913,708		SPERSCHNEIDER ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Huyen X. Vo		2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 12, 14-17 and 19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12, 14-17 and 19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 24 September 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments filed 9/15/2006 have been fully considered but they are not persuasive. While a multitude of raster points is considered as the starting and ending points of a code string, Naigai et al. fully anticipate this limitation in that each code string has a starting and an ending point as shown in figures 6 and 9. Furthermore, the decoder of Naigai et al. decodes the code string in a forward direction until an error is encountered. Then the decoder decodes the code string in a backward direction until an error is encountered. A final coding result is determined based on result of the decoding of the forward and backward directions (*referring to reference*). Examiner maintains previous grounds of rejections.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless – (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12 and 14-16 and 19 are rejected under 35 U.S.C. 102(b) as being Nagai et al. by (US 5852469).

4. Regarding claims 12 and 19, Nagai et al. disclose an apparatus and method for reading a data stream which comprises a multitude of raster points as reference points,

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the raster points specifying a raster, two adjacent raster points defining a segment (*referring to figure 6 shows multiple segments having multiple raster points*), wherein the data stream comprises a plurality of sets of code words, a first set of code words being written in the first direction and a second set of code words being written in a second writing direction (*referring to figure 6, first code string is positioned in a forward direction while second code string is positioned in a backward direction*), the code words of the second set being assigned to segments of the data stream in accordance with a predetermined assignment rule, such that each code word of a set is assigned to a different segment (*referring to figures 6 and 9*), wherein the a code word of the second set may be divided up over more than one segment in accordance with a predetermined rule, the apparatus further comprising the following:

- a first apparatus for reading in a first direction of reading which corresponds to the first direction of writing (*element 107 in figure 36 reads data in forward direction*);

- a second device for reading in a second direction of reading which is opposite to the first direction of reading (*element 108 in figure 36 reads data in backward direction*);
- and

- a control device:

- supplying the code words of the first set to the first reading device, each code word of the first set starting at the first raster point of a segment (*figure 6 shows a first and second code string with each written in opposite directions; each code string includes 2 raster points: starting and ending points; Forward decoder reads the first code string and decodes it in a forward direction using*

*forward coding tree as discussed in col. 25, lines 31-43 and also referring to figure 36), and*

for supplying the code words of the second set to the second reading device, wherein one jumps to the second raster point of a segment in accordance with the predetermined assignment rule (*figure 6 shows a first and second code string with each written in opposite directions; each code string includes 2 raster points: starting and ending points; backward decoder reads the second code string and decodes it in a backward direction using backward coding tree as discussed in col. 25, lines 31-43 and also referring to figure 36; it is inherently for the system to jump to the second code string after it finished processing the first code string*), and

wherein, after all segments have been searched for code words of the second set and at least one code word of the second set is not present or not complete, one jumps at least to one further segment in accordance with the predetermined rule in order to obtain the at least one code word of the second set completely or a part of at least one code word (*col. 25, line 44 to col. 26, line 34, determining errors and deciding if error is discarded or used*).

5. Regarding claim 14, Nagai et al. further disclose an apparatus as claimed in claim 12, wherein, if only one starting section of a code word is read by a writing device in one segment, this starting section is stored (*col. 25, line 31 to col. 26, line 33*).

6. Regarding claim 15, Nagai et al. further disclose the apparatus as claimed in claim 12, wherein the code words are Huffman code words (*col. 4, lines 1-20*).

7. Regarding claim 16, Nagai et al. further disclose the apparatus as claimed in claim 12, wherein the code words represent information symbols (*figures 6 and 9 represent information of some sort or referring to col. 26, lines 50-67*) and wherein code words of the first set represent more significant information symbols than code words of the second set or of further sets (*col. 19, lines 29-49*).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nagai et al. by (US 5852469).

10. Regarding claim 17, Nagai et al. fail to specifically disclose the apparatus as claimed in claim 16, wherein the information symbols are spectral values of an audio signal, and wherein the code words of the first set are spectral values which are significant from a psycho-acoustic point of view and which are to be protected from error

propagation due to a transmission error in the data stream. However, it would have been obvious to one of ordinary skill in the art at the time of invention to readily realize that the system of Nagai et al. can be applied to any information source including audio and image sources. The advantage of using the system of Nagai et al. to process an audio source would be to provide a high error-resistance system for processing audio signal to achieve audio quality when reconstructed.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

HXV

11/17/2006

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RICHEMOND DORVIL  
SUPERVISORY PATENT EXAMINER